Work Order ID 53478

November 6, 2009 8:41:14 AM

Item ID: D3514-3 **Accept** **Setup Start**

Revision ID: A **Stop**

Item Name: Box Top (Top Mounted)

Start Date: 06/11/2009 **Start Qty:** 6.00 **Cust Item ID:**

Required Date: 13/11/2009 **Req'd Qty:** 6.00 **Customer:**

Reference:

Approvals: **Process Plan:** A **Date:** 04-11-18 **Tooling:** _____ **Date:** _____ **Run Start**

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop**

Draw Nbr	Revision Nbr
D3514	Rev A

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
100	FLOW WATER JET	0.00					RB 4-11-18		
Waterjet	**Memo**	0.00							
FLOW CNC Waterjet	1-Cut as per Dwg D3514 ☐Dwg Rev: A ☐Prog Rev: A ☐ ***Ensure Grain Direction is corect****** ☐2-Deburr if necessary								8
6061 .040									
110	QC2- Inspect parts off machine FAI/FAIB	0.00					RB 4-11-18		
QC	**Memo**	0.00							
Quality Control									
120	QC8- Inspect parts - second check	0.00							
QC	**Memo**	0.00							
Quality Control									

Work Order ID 53478

November 6, 2009 8:41:14 AM

Item ID: D3514-3 **Accept** **Setup Start** **Stop**

Revision ID: A

Item Name: Box Top (Top Mounted)

Start Date: 06/11/2009 **Start Qty:** 6.00 **Cust Item ID:**

Required Date: 13/11/2009 **Req'd Qty:** 6.00 **Customer:**

Reference:

Run Start **Stop**

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Small Fab	0.00							
Small Fab									
Small Fab	**Memo**	0.00							
Small Fab	Countersink as per Dwg D3514								
140	QC5- Inspect part completeness to step on W/O	0.00							
QC	**Memo**	0.00							
Quality Control									
150	NC BRAKE	0.00							
Brake NC									
Brake NC	**Memo**	0.00							
	Form as per Dwg D3514								

Dart Aerospace Ltd

W/O: ,	WORK ORDER CHANGES						
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector
		D412-758					

Part No: D3514-3 **PAR #:** N/A **Fault Category:** Sm Fab **NCR:** (Yes) No **DQA:** [signature] **Date:** 09.12.08

Resolution: Scrap **Disposition:** Scrap **QA: N/C Closed:** [signature] **Date:** 09.12.08

NCR: 53478	WORK ORDER NON-CONFORMANCE (NCR)							
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			
9/11/19	120 130	Found During Sinking a Percuss From water Jet. Qty x1 RC. Machine malfuction	RSI	hole from Percuss is too close to a correct hole. Scrap ~~Pro~~ AND Destroy Qty x1 no Replace	9-11-19	09/11/19	RSI	09/11/19

NOTE: Date & initial all entries

Work Order ID 53478

November 6, 2009 8:41:14 AM

Item ID: D3514-3 **Accept** **Setup Start** **Stop**

Revision ID: A

Item Name: Box Top (Top Mounted)

Start Date: 06/11/2009 **Start Qty:** 6.00 **Cust Item ID:**

Required Date: 13/11/2009 **Req'd Qty:** 6.00 **Customer:**

Reference:

Run Start **Stop**

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 2) 09/11/26 0.00				(7)	0		
170 HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 BF 09-11-26. 0.00				(7)			
180 QC Quality Control	QC3- Inspect Part Finish Memo	0.00 MH 09/11/26 0.00				(7)	0		

Work Order ID 53478

November 6, 2009 8:41:14 AM

Item ID: D3514-3
Revision ID: A
Item Name: Box Top (Top Mounted)

Start Date: 06/11/2009 **Start Qty:** 6.00
Required Date: 13/11/2009 **Req'd Qty:** 6.00
Reference:

Accept **Setup Start** **Stop**

Cust Item ID:
Customer:

Run Start **Stop**

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	Identify as per dwg & Stock Location 23-A	0.00				6		7	
Packaging	**Memo**	0.00							
Packaging									
200	QC21- Final Inspection - Work Order Release	0.00							
QC	**Memo**	0.00							
Quality Control									

09/11/30 KJ

RL 09-30-11

7

Picklist Print

November 6, 2009 8:41:19 AM

Work Order ID: 53478

Parent Item: D3514-3RevA

Parent Item Name: Box Top (Top Mounted)

Start Date: 06/11/2009 **Required Date:** 13/11/2009

Comments:

Start Qty: 6.00 **Required Qty:** 6.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
M6061T6S.040		Purchased	No			100	sf	253.0005	2.8945	4.	8 9-11-09	

6061-T6 .040 Sheet

Warehouse Location	Loc Qty	Loc Code	
Main Warehouse			
MAT	253.0005		
100742	3.3		
102723	5.93		
105842	12		
106747	5.7516		
107461	11.7841		
109396	21.9316		109346
111224	23.0629		
113004	167.7403		
19380	1.5		

(8)

DART AEROSPACE LTD	Work Order:	53478
Description: Box Top (Top Mounted)	Part Number:	D3514-3
Inspection Dwg: D3514 **Rev:** A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

[X] First Article [] Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.098	+0.004/-0.001	.100	✓			
Ø0.129	+0.005/-0.001	.137	✓			
Ø0.144	+0.005/-0.001	.148	✓			
12.00	+/-0.030	12.00	✓			
5.500	+/-0.010	5.505	✓			
5.000	+/-0.010	4.997	✓			
3.650	+/-0.010	3.651	✓			
3.500	+/-0.010	3.499	✓			
2.000	+/-0.010	2.001	✓			
1.850	+/-0.010	1.851	✓			
0.500	+/-0.010	.502	✓			
6.000	+/-0.010	6.000	✓			
5.703	+/-0.010	5.703	✓			
3.493	+/-0.010	3.497	✓			
1.500	+/-0.010	1.500	✓			
1.400	+/-0.010	1.400	✓			
3.184	+/-0.010	BEND				
5.247	+/-0.010	BEND				

Measured by:	JB
Date:	9-11-18

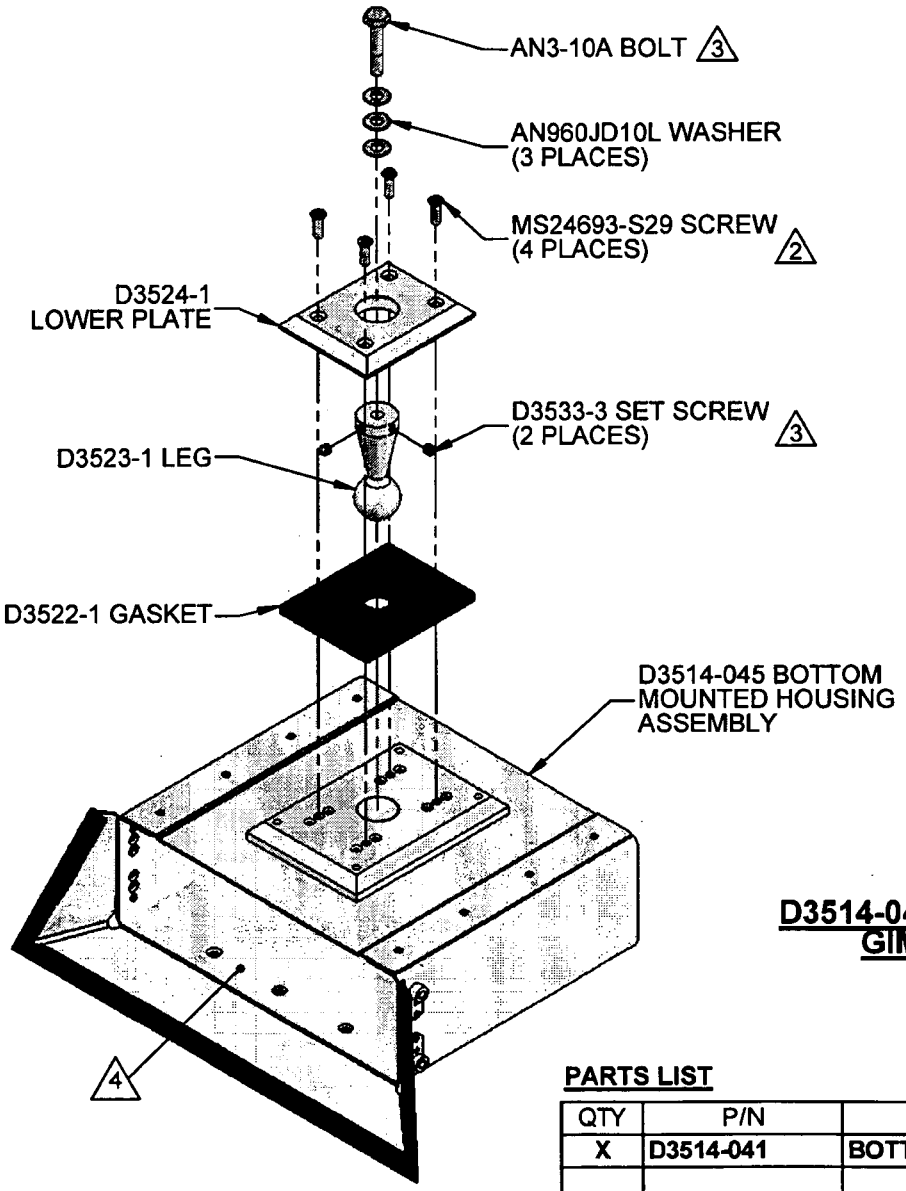
Audited by:	
Date:	09/11/18

Prototype Approval:	N/A
Date:	N/A

Rev	Date	Change	Revised by	Approved
A	07.11.23	New Issue	KJ/EC/DD	

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LE		D3514 SHEET 1 OF 9
DATE		TITLE SCALE
07.06.18		GPS RECEIVER HOUSING 1:3

REV	DATE	DESCRIPTION
A	07.06.18	NEW ISSUE



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07.08.03

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SUBJ

M 53478
B/09-11-6

D3514-041 BOTTOM MOUNTED GIMBAL ASSEMBLY

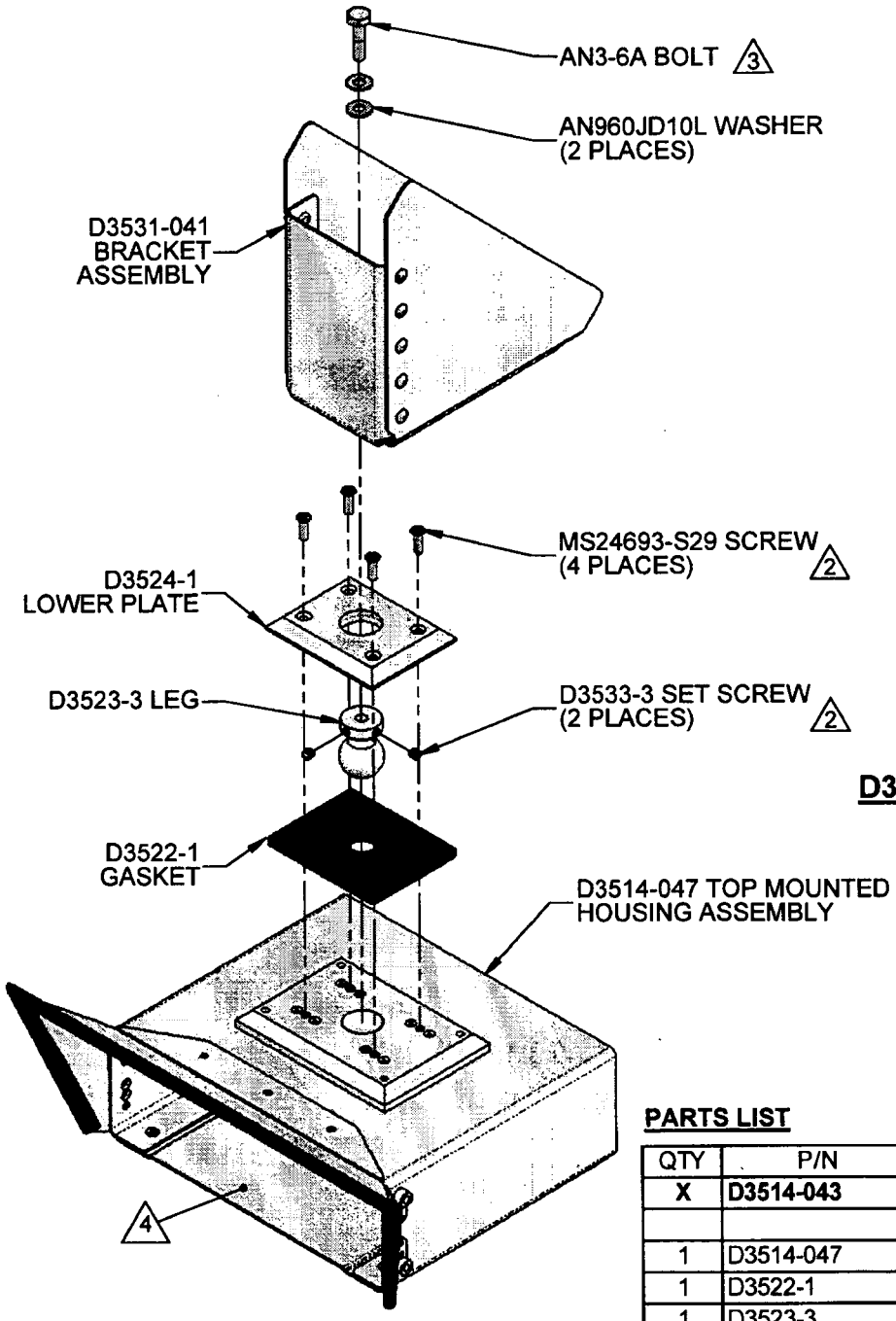
PARTS LIST

QTY	P/N	DESCRIPTION
X	**D3514-041**	**BOTTOM MOUNTED GIMBAL ASSEMBLY**
1	D3514-045	BOTTOM MOUNTED HOUSING ASSEMBLY
1	D3522-1	GASKET
1	D3523-1	LEG
1	D3524-1	LOWER PLATE
2	D3533-3	SET SCREW
1	AN3-10A	BOLT
3	AN960JD10L	WASHER
4	MS24693-S29	SCREW

NOTE:
1) ASSEMBLE PER DART QSI 003
2) TORQUE SCREWS TO 5-6 in-lbs
3) TIGHTEN TO SNUG FIT ONLY
4) IDENTIFY WITH DART P/N "D3514-041" USING A WHITE MARKER ON THE INSIDE OF THE HOUSING ASSEMBLY WHERE INDICATED

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LE		D3514 SHEET 2 OF 9
DATE		TITLE SCALE
07.06.18		GPS RECEIVER HOUSING 1:3



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07.08.03

w/o 53478

D3514-043 TOP MOUNTED GIMBAL ASSEMBLY

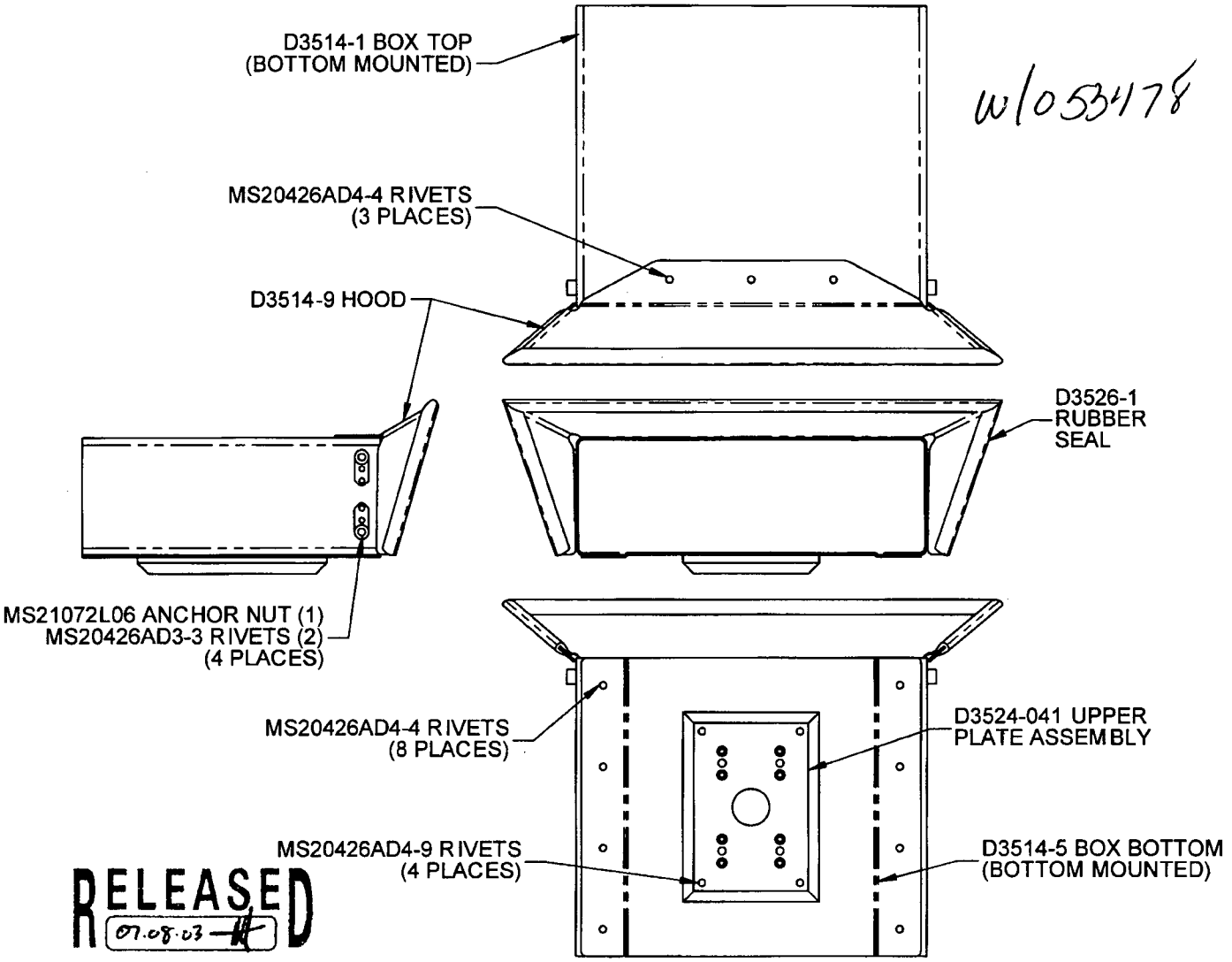
NOTE:
1) ASSEMBLE PER DART QSI 003
2) TORQUE SCREWS TO 5-6 in-lbs
3) TORQUE BOLTS TO 15-25 in-lbs
4) IDENTIFY WITH DART P/N "D3514-043" USING A WHITE MARKER ON THE INSIDE OF THE HOUSING ASSEMBLY WHERE INDICATED

PARTS LIST

QTY	P/N	DESCRIPTION
X	**D3514-043**	**TOP MOUNTED GIMBAL ASSEMBLY**
1	D3514-047	TOP MOUNTED HOUSING ASSEMBLY
1	D3522-1	GASKET
1	D3523-3	LEG
1	D3524-1	LOWER PLATE
1	D3531-041	BRACKET ASSEMBLY
2	D3533-3	SET SCREW
1	AN3-6A	BOLT
2	AN960JD10L	WASHER
4	MS24693-S29	SCREW

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DATE		SHEET 3 OF 9
07.06.18		TITLE / SCALE
		GPS RECEIVER HOUSING / 1:3



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07.08.03

D3514-045 BOTTOM MOUNTED HOUSING ASSEMBLY

NOTES:
1) POWDER COAT ASSEMBLY BLACK SANDTEX (4.3.5.7) PER DART QSI 005 4.3.
2) ASSEMBLE PER DART QSI 003

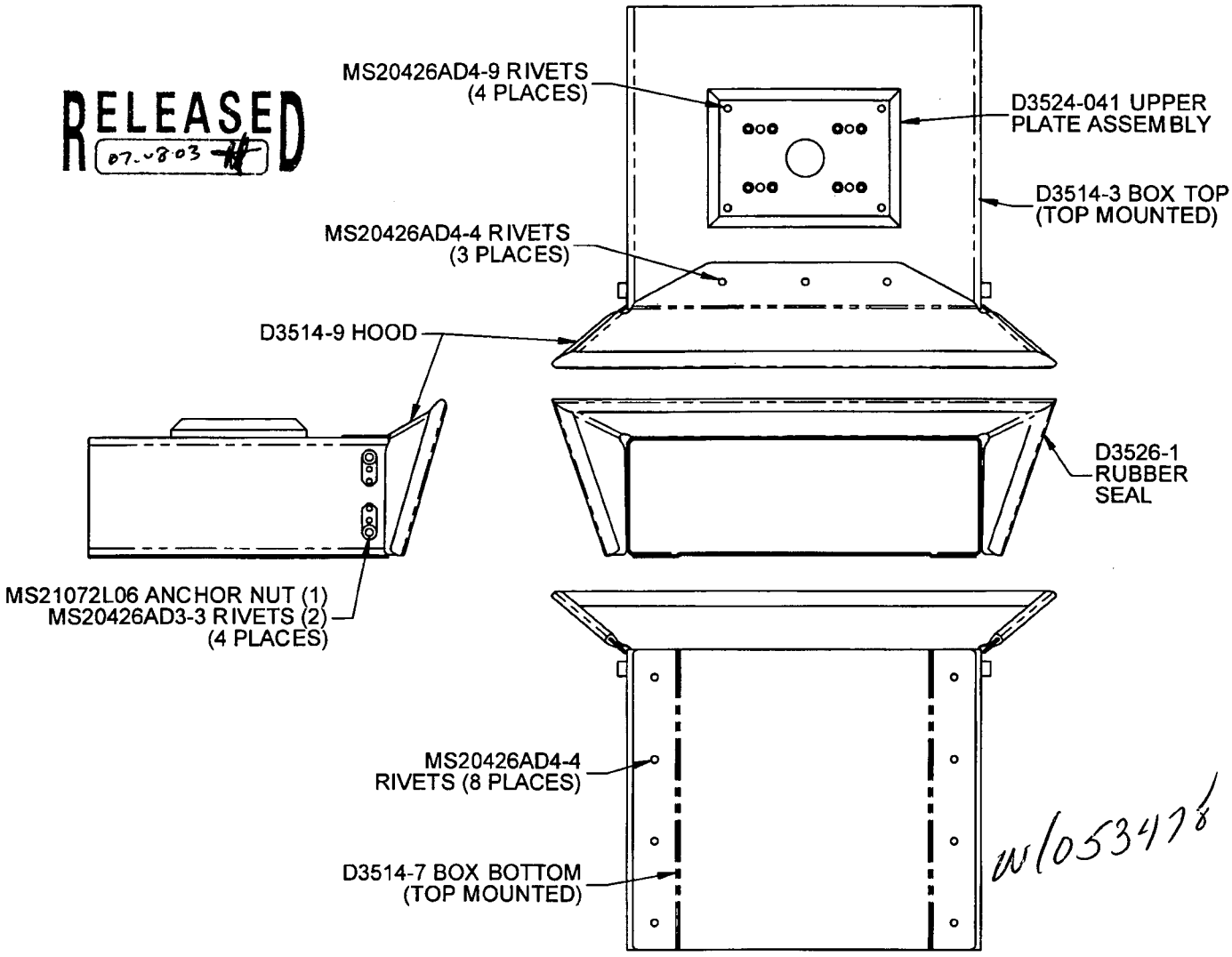
PARTS LIST

QTY	P/N	DESCRIPTION
X	**D3514-045**	**BOTTOM MOUNTED HOUSING ASSEMBLY**
1	D3514-1	BOX TOP (BOTTOM MOUNTED)
1	D3514-5	BOX BOTTOM (BOTTOM MOUNTED)
1	D3514-9	HOOD
1	D3524-041	UPPER PLATE ASSEMBLY
1	D3526-1	RUBBER SEAL
8	MS20426AD3-3	RIVET
11	MS20426AD4-4	RIVET
4	MS20426AD4-9	RIVET
4	MS21072L06	ANCHOR NUT

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DATE		TITLE	SCALE
07.06.18		GPS RECEIVER HOUSING	1:3

RELEASED
07-08-03



w/053478

D3514-047 TOP MOUNTED HOUSING ASSEMBLY

NOTES:
1) POWDER COAT ASSEMBLY BLACK SANDTEX (4.3.5.7) PER DART QSI 005 4.3.
2) ASSEMBLE PER DART QSI 003

PARTS LIST

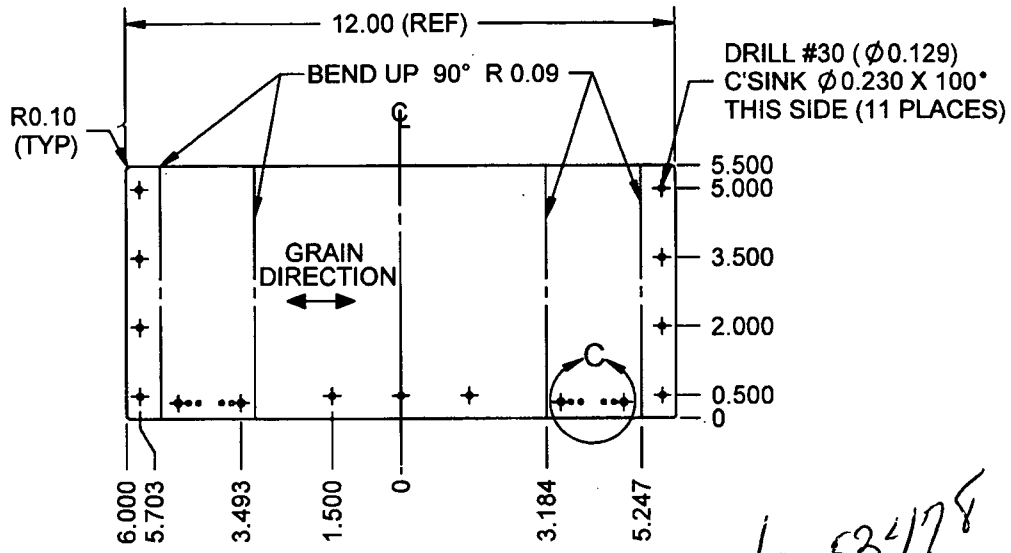
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X	D3514-047	TOP MOUNTED HOUSING ASSEMBLY
1	D3514-3	BOX TOP (TOP MOUNTED)
1	D3514-7	BOX BOTTOM (TOP MOUNTED)
1	D3514-9	HOOD
1	D3524-041	UPPER PLATE ASSEMBLY
1	D3526-1	RUBBER SEAL
8	MS20426AD3-3	RIVET
11	MS20426AD4-4	RIVET
4	MS20426AD4-9	RIVET
4	MS21072L06	ANCHOR NUT

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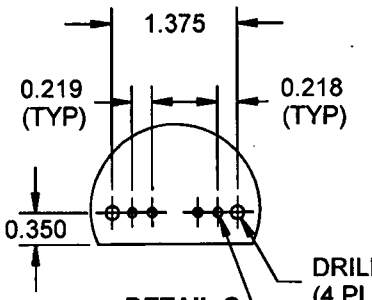
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LE		D3514 / REV. A
		SHEET 5 OF 9
DATE	TITLE	SCALE
07.06.18	GPS RECEIVER HOUSING	1:4

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D3514-1F
FLAT PATTERN

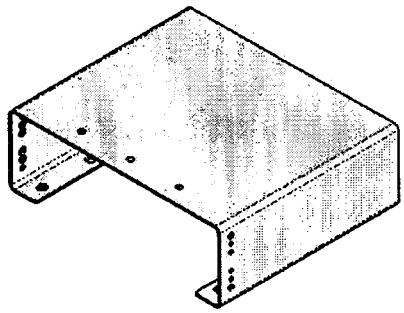
w/o 53478

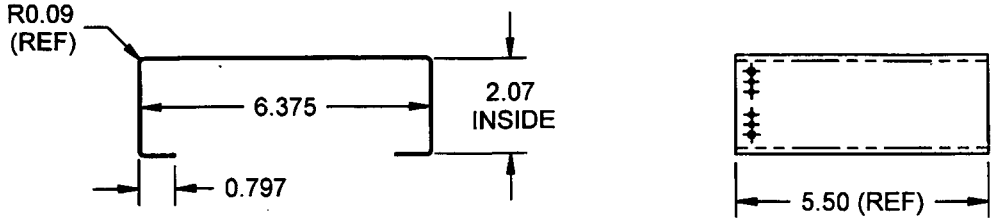


DETAIL C
SCALE 1:2

DRILL #27 (Ø0.144)
(4 PLACES)

DRILL #40 (Ø0.098)
C'SINK Ø0.182 X 100° THIS SIDE
(8 PLACES) FOR RIVETS





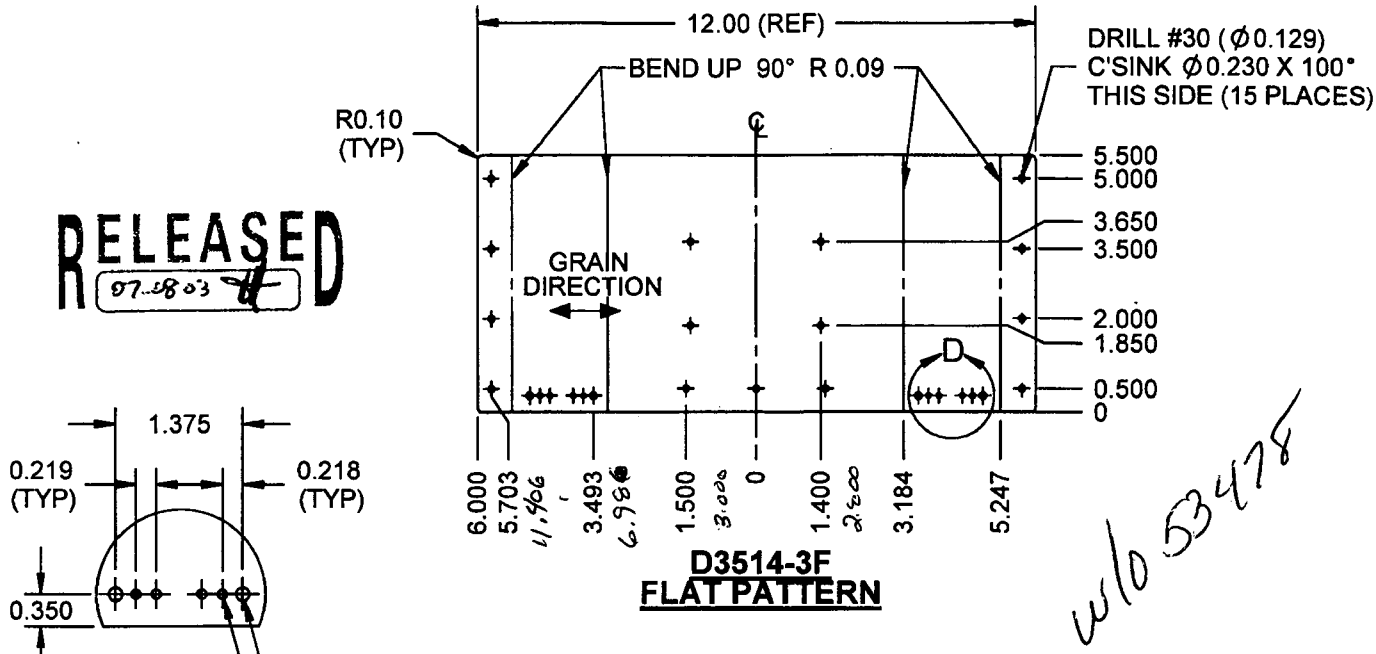
D3514-1 BOX TOP (BOTTOM MOUNTED)

NOTES:
1) MATERIAL: ALUMINUM 6061-T6/T62 SHEET, 0.040 THICK PER QQ-A-250/11 OR AMS 4025 OR AMS 4027 (REF DART SPEC M6061T6S.040)
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
5) BREAK ALL SHARP CORNERS TO 0.010 MAX
6) PART IS SYMMETRIC ABOUT ℄
7) C'SINKS ARE ON THE INSIDE OF PART (AFTER BENDING)

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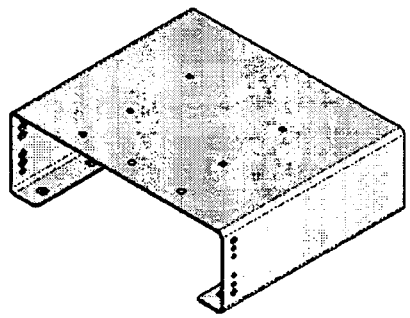
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CHECKED	APPROVED	DRAWING NO.	REV. A
LE		D3514	SHEET 6 OF 9
DATE		TITLE	SCALE
07.06.18		GPS RECEIVER HOUSING	1:4

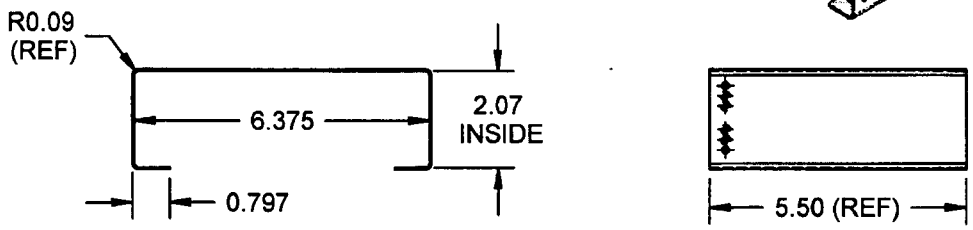
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D3514-3F
FLAT PATTERN

w/o 53478



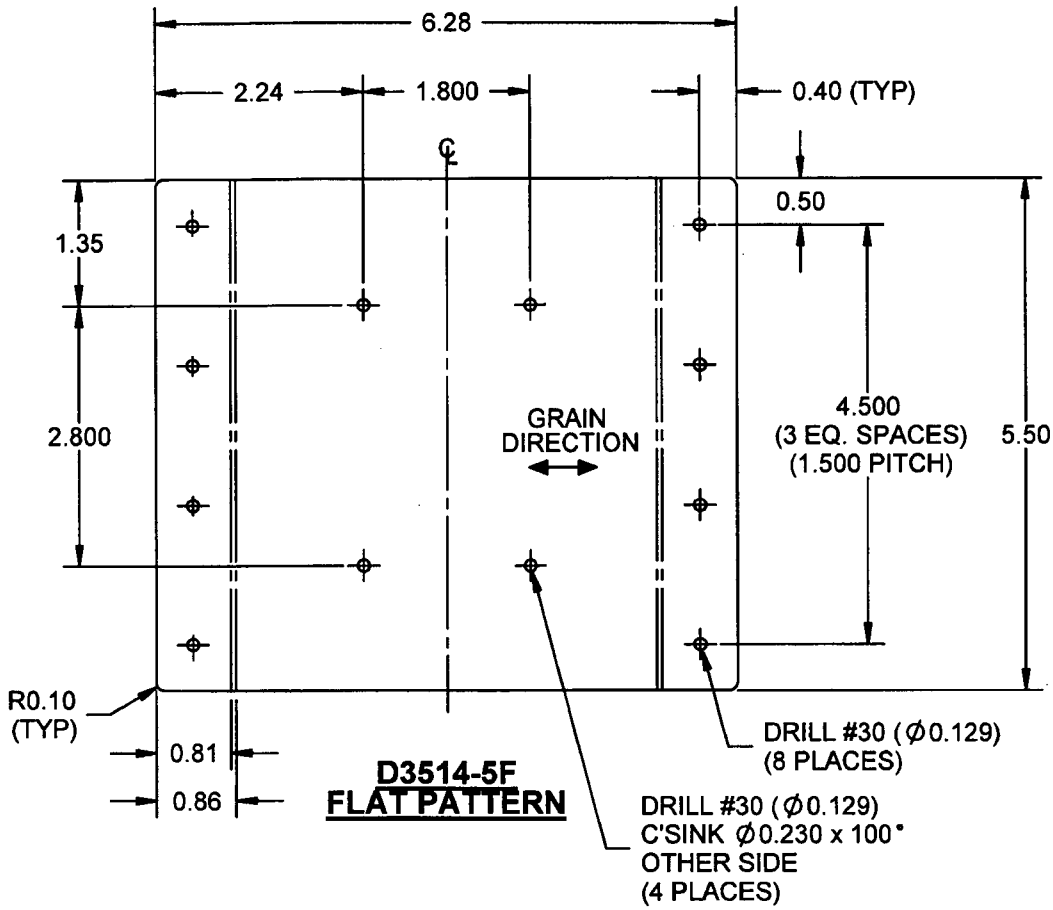


D3514-3 BOX TOP (TOP MOUNTED)

NOTES:
1) MATERIAL: ALUMINUM 6061-T6/T62 SHEET, 0.040 THICK PER QQ-A-250/11 OR AMS 4025 OR AMS 4027 (REF DART SPEC M6061T6S.040)
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
5) BREAK ALL SHARP CORNERS TO 0.010 MAX
6) PART IS SYMMETRIC ABOUT ℄
7) C'SINKS ARE ON THE INSIDE OF PART (AFTER BENDING)

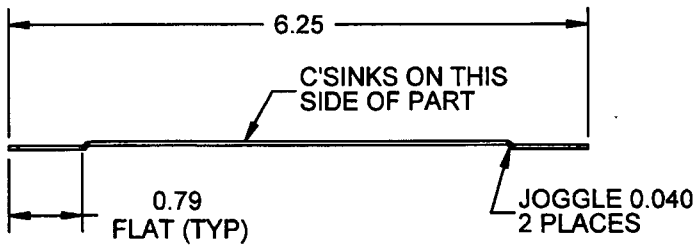
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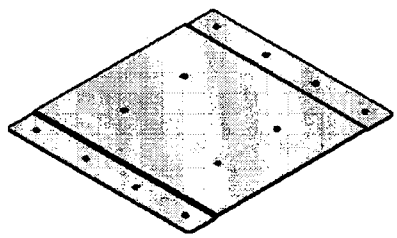
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LE		D3514 / A
DATE		TITLE / SCALE
07.06.18		GPS RECEIVER HOUSING / 1:2



D3514-5F FLAT PATTERN

w/o 53478





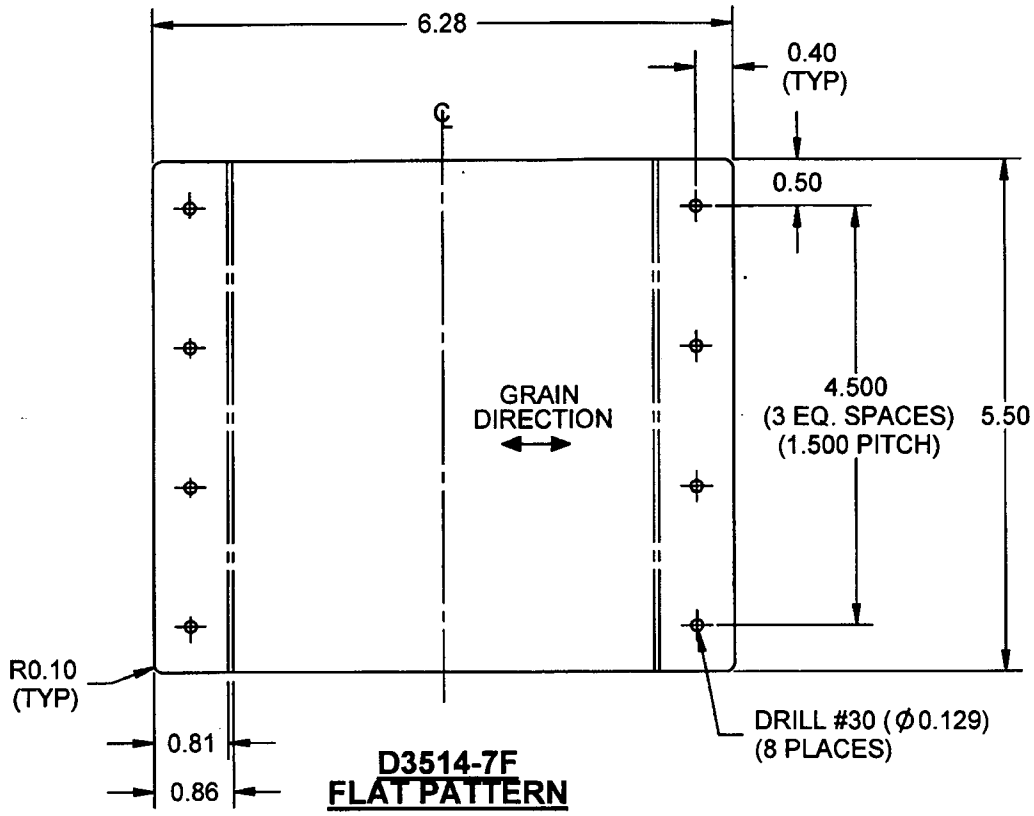
D3514-5 BOX BOTTOM (BOTTOM MOUNTED)

NOTES:
1) MATERIAL: ALUMINUM 6061-T6/T62 SHEET, 0.040 THICK PER QQ-A-250/11 OR AMS 4025 OR AMS 4027 (REF DART SPEC M6061T6S.040)
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
5) BREAK ALL SHARP CORNERS TO 0.010 MAX
6) PART IS SYMMETRIC ABOUT ℄
7) C'SINK ABOVE JOGGLE

RELEASED 07.08.03

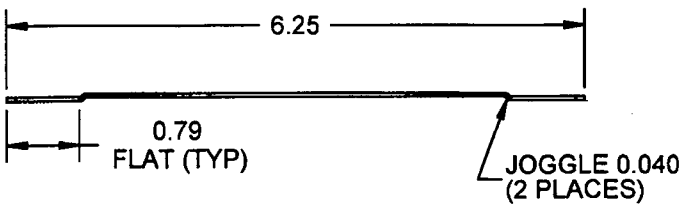
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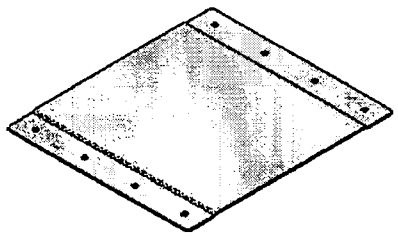
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CB	CB	HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. REV. A
LE		D3514 SHEET 8 OF 9
DATE		TITLE SCALE
07.06.18		GPS RECEIVER HOUSING 1:2



D3514-7F
FLAT PATTERN

w/o 53478





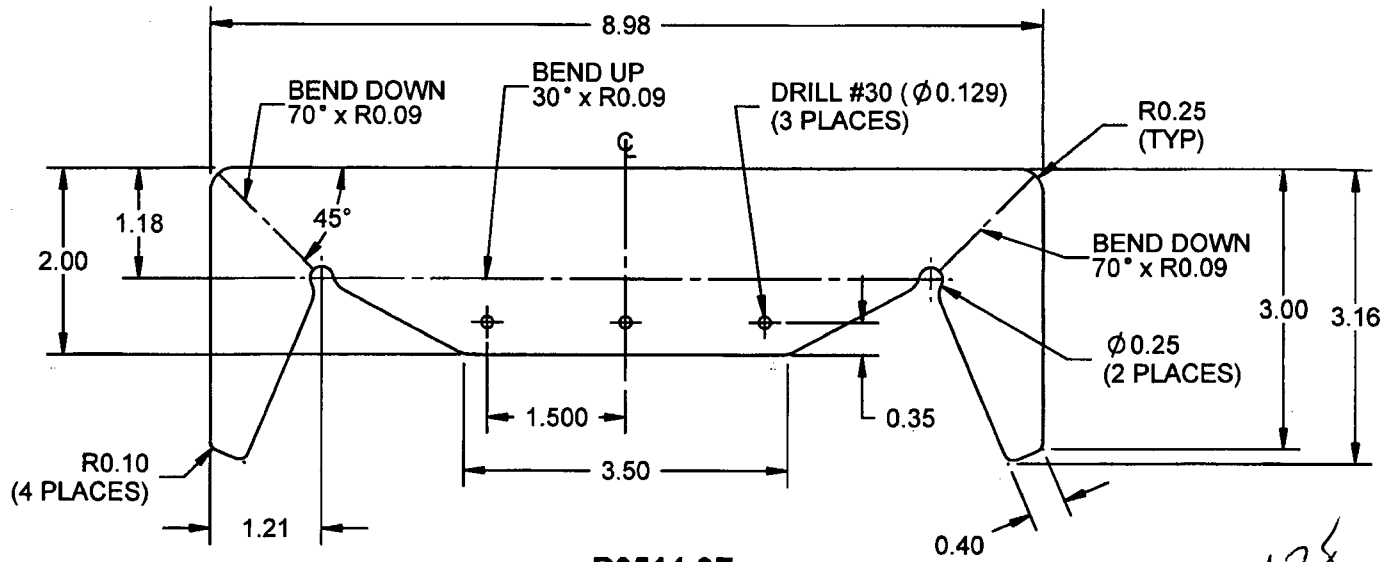
D3514-7 BOX BOTTOM (TOP MOUNTED)

NOTES:
1) MATERIAL: ALUMINUM 6061-T6/T62 SHEET, 0.040 THICK PER QQ-A-250/11 OR AMS 4025 OR AMS 4027 (REF DART SPEC M6061T6S.040)
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
5) BREAK ALL SHARP CORNERS TO 0.010 MAX
6) PART IS SYMMETRIC ABOUT ℄

RELEASED
07.08.03

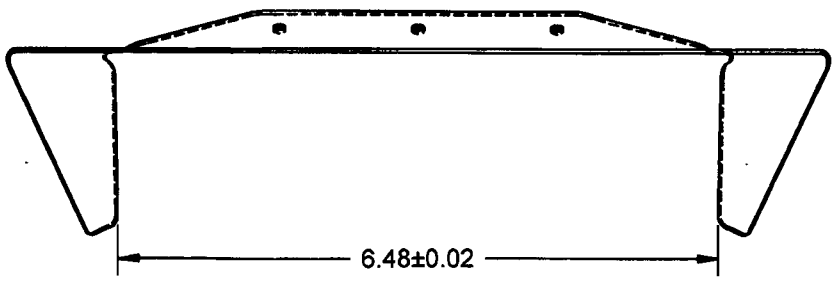
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DESIGN	DRAWN BY	DART AEROSPACE LTD	
CB	CB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. A
LE		D3514	SHEET 9 OF 9
DATE		TITLE	SCALE
07.06.18		GPS RECEIVER HOUSING	1:2



D3514-9F
FLAT PATTERN

w/o 53478





FRONT VIEW

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07.08.03

D3514-9 HOOD

NOTES:
1) MATERIAL: ALUMINUM 6061-T6/T62 SHEET, 0.040 THICK PER QQ-A-250/11 OR AMS 4025 OR AMS 4027 (REF DART SPEC M6061T6S.040)
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4) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
5) BREAK ALL SHARP CORNERS TO 0.010 MAX
6) PART IS SYMMETRIC ABOUT ℄

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